

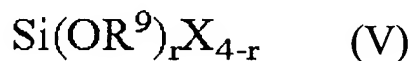
IN THE CLAIMS:

1. (Currently Amended) A solid catalyst component for olefin polymerization obtained by reacting the following compounds (i), (ii) and (iv); or (i), (ii), (iii) and (iv):

(i) a halogen-containing titanium compound;

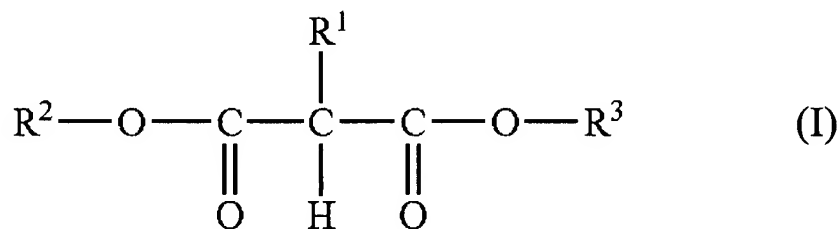
(ii) an alkoxy-containing magnesium compound obtained by reacting metal magnesium, an alcohol and a halogen and/or a halogen-containing compound containing at least 0.0001 gram atom of halogen atoms per mol of the metal magnesium;

(iii) a halogen-containing silicon compound represented by the following general formula (V):



wherein X is a halogen atom; R⁹ is a hydrocarbon group; and r is an integer of 0 to 3; and

(iv) an electron-donating compound represented by the following general formula (I):



wherein R¹ represents a linear or branched alkyl group having 1 or more carbon atoms; and R² and R³ independently represent a linear or branched C₁₋₂₀ alkyl group.

2. (Original) The solid catalyst component according to claim 1 wherein the halogen of the compound (ii) is iodine.

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3. (Original) The solid catalyst component according to claim 1 wherein the halogen-containing compound of the compound (ii) is magnesium chloride.

4. (Currently Amended) The solid catalyst component according to claim 1 wherein the halogen-containing silicon compound (iii) is ~~carbon~~ silicon tetrachloride.

5. (Original) The solid catalyst component according to claim 1 wherein the electron-donating compound (iv) is diethyl n-butylmalonate.

6. (Original) The solid catalyst component according to claim 1 wherein the halogen-containing titanium compound (i) and the alkoxy-containing magnesium compound (ii) are brought into contact with each other, and thereafter the electron-donating compound (iv) is brought into contact therewith when the compounds (i), (ii) and (iv) are reacted.

7. (Original) A catalyst for olefin polymerization comprising the following components [A] and [B]; or [A], [B] and [C]:

[A] the solid catalyst component according to claim 1;

[B] an organic aluminum compound; and

[C] an electron-donating compound.

8. (Original) A method of producing an olefin polymer which comprises polymerizing an olefin with the catalyst according to claim 7.

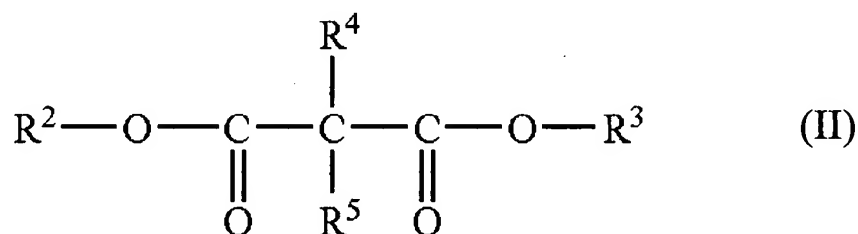
9. (Currently Amended) A solid catalyst component for propylene-ethylene copolymerization obtained by reacting the following compounds (a), (b) and (c); or (a), (b), (c) and (d),

the solid catalyst component obtained by contacting the compounds (a) and (c); or (a), (c) and (d) with the compound (b) at 120 to 150°C, and thereafter washing the contact product with an inert solvent at 100 to 150°C:

(a) [[a]] an alkoxy-containing magnesium compound obtained by reacting metal magnesium, an alcohol and a halogen and/or a halogen-containing compound containing at least 0.0001 gram atom of halogen atoms per mol of the metal magnesium;

(b) a titanium compound;

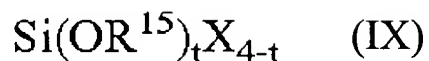
(c) an electron-donating compound represented by the following general formula (II): and



wherein R⁴ represents a linear, branched or cyclic C₁₋₂₀ alkyl group; R⁵ represents H or C₁₋₂ alkyl group; ~~R⁴ and R⁵ may be bound together to form a ring;~~ and R² and R³ independently represent a linear or branched C₁₋₂₀ alkyl group;

(d) a silicon compound represented by the following general formula (IX):

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wherein X is a halogen atom; R¹⁵ is a hydrocarbon group; and t is an integer of 0 to 4.

10. (Cancelled)

11. (Cancelled)

12. (Original) The solid catalyst component for propylene-ethylene copolymerization according to claim 9 wherein R⁴ represents a linear, branched or cyclic C₁₋₂₀ alkyl group; and R⁵ represents H or C₁₋₂ alkyl group.

13. (Original) The solid catalyst component for propylene-ethylene copolymerization according to claim 9 wherein the electron-donating compound (c) is diethyl n-butylmalonate.

14. (Cancelled)

15. (Original) A catalyst for propylene-ethylene copolymerization comprising the following compounds [A] and [B]; or [A], [B] and [C]:

[A] the solid catalyst component according to claim 9;

[B] an organic aluminum compound; and

[C] an electron-donating compound.

16. (Original) The catalyst for propylene-ethylene copolymerization according to claim 15 wherein the catalyst is a preliminary polymerization catalyst obtained by bringing the components [A], [B] and [C] in contact with an α -olefin, an amount of preliminary-polymerization being from 0.1 to 100 wt%.

17. (Withdrawn) A method of producing a propylene-ethylene random copolymer which comprises random copolymerizing propylene and ethylene with the catalyst according to claim 16.

18. (Withdrawn) A propylene-ethylene random copolymer obtained by the method according to claim 17.

19. (Withdrawn) The propylene-ethylene random copolymer according to claim 18 which has an ethylene content of from 0.1 wt% to 4 wt% and has a 0°C soluble component of 1.0 wt% or less.

20. (Withdrawn) The propylene-ethylene random copolymer according to claim 18 which has an ethylene content of more than 4 wt%, but 5 wt% or less; and has a 0°C soluble component of more than 1.0 wt%, but 2.0 wt% or less.

21. (Withdrawn) A method of producing a propylene-ethylene block copolymer which comprises the steps of:

polymerizing propylene to form a polypropylene component, and
copolymerizing ethylene and propylene to form an ethylene-propylene copolymer component,

wherein the catalyst according to claim 15 is used in at least one of the steps.

22. (Withdrawn) A propylene-ethylene block copolymer obtained by the method according to claim 21.

23. (Withdrawn) The propylene-ethylene block copolymer according to claim 22 whose MFR is from 10 to 20 g/10 minutes.

24. (New) The solid catalyst component according to claim 1, wherein the alkoxy-containing magnesium compound (ii) and halogen-containing silicon compound (iii) are subjected to contact-reaction and then brought into contact with the electron-donating compound (iv), and finally with the halogen-containing compound (i) when the compounds (i), (ii), (iii) and (iv) are reacted.

25. (New) The solid catalyst component according to claim 6, wherein the contact temperature is 125 to 140°C.

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26. (New) The solid catalyst component according to claim 24, wherein the contact temperature is 125 to 140°C.

27. (New) The solid catalyst component for propylene-ethylene copolymerization according to claim 9, wherein the contact temperature is 125 to 140°C and the washing temperature is 120 to 140°C.